

Statement of Basis - Narrative

NSR Permit

Type of Permit Action: Regular-Significant Revision

Facility: XTO - Longhorn Compressor Station
Company: XTO Energy Inc
Permit No(s): 8349M2 and 8349M1
Tempo/IDEA ID No.: 39012 - PRN20200001
Permit Writer: Urshula Bajracharya

Fee Tracking (not required for Title V)

Tracking	NSR tracking entries completed: <input type="checkbox"/> Yes <input type="checkbox"/> No
	NSR tracking page attached to front cover of permit folder: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Paid Invoice Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Balance Due Invoice Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Invoice Comments: Paid on 11/16/2021

Permit Review	Date to Enforcement: TBD	Date of Enforcement Reply: TBD
	Date to Applicant: TBD	Date of Applicant Reply: TBD
	Date to EPA: TBD or N/A	Date of EPA Reply: TBD or N/A
	Date to Supervisor: 05/24/2021	

- 1.0 Plant Process Description:** The facility is a typical compressor station with natural gas engines, dehydration, storage tanks, and flares.
- 2.0 Description of this Modification:**
The facility is proposing the following modifications:
a) Remove HTR2 and HTR3, ENG10, ENG13 and FL3
b) Increase glycol circulation rate for DEHY1-3
c) Decrease glycol regenerator reboiler (RB1-RB3) unit heat input from 3 MMBtu/hr to 2.0 MMBtu/hr
d) Increase flare purge gas rates, add inlet gas flaring and update FL1-FL2 heights to 145. Increasing steady state flaring associated with increased tank throughput and glycol circulation rate; Update sources that vent to flare.
e) Update tank throughputs
f) Decrease condensate truck loading
g) Change sources that vent to VC1, only combusts vapors from DEHY1-3 still vent and pilot gas.
h) Update ENG1-9 and ENG11-12 VOC/formaldehyde/CO control efficiencies and update emissions factors from Caterpillar Gas Engine Rating Pro (GERP) analysis.
i) Added VOC malfunction emissions.
- 3.0 Source Determination:**
1. The emission sources evaluated include the entire facility.

2. Single Source Analysis:

- A. SIC Code: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? Yes
- B. Common Ownership or Control: Are the facilities under common ownership or control? Yes
- C. Contiguous or Adjacent: Are the facilities located on one or more contiguous or adjacent properties? Yes

3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes? Yes

4.0 PSD Applicability:

Once a source is PSD major for any single pollutant, all other pollutants, other than non-attainment pollutants, must be evaluated against Table 20.2.74.502 Significant Emission Rate for applicability regardless if that pollutant is over the 100/250 tpy threshold per 20.2.74.200(d)(1), 74.302.A and 302.B NMAC. See Section A, PSD Applicability, of the 1990 Workshop Manual for details, but keep in mind that the regulation has changed since the guidance was published.]

- A. The source, as determined in 3.0 above, is a minor source before and after this modification.
- B. The project emissions for this modification are not significant.
- C. Netting is not required (project is not significant).
- D. BACT is not required for this modification.

5.0 History (In descending chronological order, showing NSR and TV): *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
8349-M2*	02/11/2022 (Signed after Final Order for Hearing)	NSR-Sig Mod	The modification will consist of modification of eleven (11) compressor engines, three(3) reboilers, two (2) flares, one (1) still vent emission, two (2) skim tanks, four (4) condensate tanks, two (2) produced water tanks, two (2) vapor recovery units, three (3) TEG dehydrator units, low pressure separator, truck loading and fugitive emissions. The facility will be removing two (2) engines, two (2) heaters and one (1) flare.
8349-M1	01/16/2020	NSR-Regular	This permit action is to add thirteen (13) natural gas engines, three (3) TEG glycol dehydrators, three (3) glycol regenerators, three (3) heaters, three (3) flares, two (2) skim tanks, four (4) condensate tanks, two (2) produced water tanks, a VRU, a low pressure separator and a vapor combustor to an existing GCP Oil and Gas facility.
8349	06/13/2019	GCP O&G	General Permit COP-Oil and Gas permit was obtained by the facility.

6.0 Public Response/Concerns: On December 3, 2020 the AQB received a hearing request for Longhorn compressor station facility from WildEarth Guardians.

7.0 Compliance Testing:
No tests have been performed.

8.0 Startup and Shutdown:

- A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? Yes
- B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? Yes
- C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? Yes
- D. Does the facility have emissions due to routine or predictable startup, shutdown, and maintenance? If so, have all emissions from startup, shutdown, and scheduled maintenance operations been permitted? Yes

9.0 Compliance and Enforcement Status:
According to the compliance and enforcement section – A search of our section’s electronic files on January 7, 2021, revealed no current enforcement actions or records for the XTO Energy Longhorn Compressor Station. No outstanding NOV’s, SO’s or SA’s were located.

10.0 Modeling:
The modeling report from Rhett Zyla (12/04/19) states: This modeling analysis demonstrates that operation of the facility described in this report neither causes nor contributes to any exceedances of applicable air quality standards. The standards relevant at this facility are NAAQS for CO, NO₂, PM₁₀, PM_{2.5}, and SO₂; NMAAQs for CO, NO₂, and SO₂; Class II PSD increments for NO₂, PM₁₀, PM_{2.5}, and SO₂.

11.0 State Regulatory Analysis (NMAC/AQCR):

STATE REGULATIONS Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.1	General Provisions	Yes	Entire Facility	The facility is subject to Title 20 Environmental Protection Chapter 2 Air Quality of the New Mexico Administrative Code so is subject to Part 1 General Provisions, Update to Section 116 of regulation for Significant figures & rounding. Applicable with no permitting requirements.
2.3	Ambient Air Quality Standards	Yes	Entire Facility	NSR: 20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide.
2.7	Excess Emissions	Yes	Entire Facility	Applies to all facilities' sources

STATE REGU- LATIONS Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.38	Hydrocarbon Storage Facilities	Yes	OT1 – OT4	20.2.38 NMAC This regulation could apply to storage tanks at petroleum production facilities, processing facilities, tanks batteries, or hydrocarbon storage facilities.
2.61	Smoke and Visible Emissions	Yes	FL1 – FL2, RB1 – RB3, ENG1 – ENG9, ENG11 – ENG12, HTR1	This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC).
2.70	Operating Permits	Yes	Entire Facility	The source is a Title V Major Source as defined at 20.2.70.7 NMAC.
2.71	Operating Permit Fees	Yes	Entire Facility	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.
2.72	Construction Permits	Yes	Entire Facility	NSR Permits are the applicable requirement, including 20.2.72 NMAC.
2.73	NOI & Emissions Inventory Requirements	Yes	Entire Facility	Applicable to all facilities that require a permit. PER > 10 tpy for a regulated air contaminant.
2.75	Construction Permit Fees	Yes	Entire Facility	This facility is subject to 20.2.72 NMAC
2.77	New Source Performance Standards	Yes	See Sources subject to 40 CFR 60	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60.
2.78	Emissions Standards for HAPs	No	See Sources subject to 40 CFR 61	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61.
2.79	Permits Nonattainment Areas	No		This facility is not located in, not does it affect, a nonattainment area. Link to Non-attainment Link areas
2.82	MACT Standards for Source Categories of HAPs	Yes	See sources subject to 40 CFR 63	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63.

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
Air Programs Subchapter C	National Primary and Secondary Ambient Air	Yes	Entire Facility	Independent of permit applicability; applies to all sources of emissions for

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
(40 CFR 50)	Quality Standards			which there is a Federal Ambient Air Quality Standard.
NSPS Subpart A (40 CFR 60)	General Provisions	Yes	See sources subject to a Subpart in 40 CFR 60	Applies if any other subpart applies.
40 CFR Part 60 Subpart JJJJ (Quad -J)	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Yes	ENG1 – ENG3, ENG4-9 (TBD), ENG 11 – ENG12	The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of section 60.4230. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. Link to regulation – read more
NSPS 40 CFR Part 60 Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	Yes	FUG, Compressors for ENG1 – ENG9, ENG11 – ENG12	The storage tanks were constructed after the applicability date of the rule; however, XTO is requesting emissions be limited by permit to less than 6 tpy. The regulation is applicable to the storage tanks but the tanks are not affected sources. The site uses low-bleed pneumatic controllers. The site is subject to leak monitoring from fugitive components. The compressors for the engines are subject.
NESHAP Subpart A (40 CFR 61)	General Provisions	No	See sources subject to a Subpart in 40 CFR 61	Applies if any other subpart applies.
MACT Subpart A (40 CFR 63)	General Provisions	Yes	See sources subject to a Subpart in 40 CFR 63	Applies if any other subpart applies.
40 CFR 63.760 Subpart HH	Oil and Natural Gas Production Facilities –	Yes	DEHY1 – DEHY3	In accordance with the definition of a major source as defined in 40 CFR 63.761, this facility is Subject to the requirements

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				of 40 CFR 63 Subpart HH Facility was major for HAPS after June 17, 2002.
40 CFR 63 Subpart ZZZZ (Quad Z)	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)	Yes	ENG1 – ENG3, ENG4-9 (TBD) ENG11 – ENG12	See 63.6580 and EPA Region 1's Reciprocating Internal Combustion Guidance website. A facility is subject to this subpart if they own or operate a stationary RICE at a major source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

13.0 Exempt and/or Insignificant Equipment that do not require monitoring:

NSR Exempt Equipment (not entered into Tempo database)

Unit Number	Source Description	Make	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction ²
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List Item #1. a)	Date of Installation /Construction ²
ROAD	Haul Road Emissions	N/A	N/A	N/A	20.2.72.202.B.5	N/A
			N/A	N/A	20.2.72.202.B.5	N/A

14.0 New/Modified/Unique Conditions (Format: Condition#: Explanation):

- A. Modification 1: The conditions 107.A SSM Emission and 107.B Malfunction emission was added to replace the condition 107.C. Combined SSM and Malfunction emissions from Permit (8349M1).
- B. Modification 2: The condition 203.C (8349M1) was replace by condition 203.E Flares (Units FL1 and FL2): Control Device for Condensate Tanks (Units OT1 - OT4), Produced Water Tanks (Units WT1 - WT2), and Skim Tanks (Units SKT1 - SKT2)
- C. New Condition 1: The condition 202.D Vapor Combustor (Unit VC1): Control Device for Uncondensed Hydrocarbon Vapors from the BTEX Condensers (COND1 - COND3) was added to this permit.
- D. New Condition 2: The condition 203.F Low Pressure Separator (LPS) and Control Devices (Vapor Recovery Units (Units VRU1 and VRU2) and Flares (Units FL1 and FL2)) was added to this permit.
- E. New Condition 3: Condition 206.D Flare Parametric Monitoring for Low Pressure Sides - Low Pressure Side Pilots and Vapors from Condensate Tanks (Units FL1 and FL2)

15.0 Permit specialist's notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.

- A. Condition A.108 B Limit on Facility inlet throughput (8349M1) was removed from this permit since this is a compressor station and not a gas processing plant.
- B. Condition A201.A Maintenance and Repair Monitoring (8349M1) was removed since the unit was removed in this permit action.
- C. Condition A205.C and A205.D were removed because the flares were not subject to OOOOa.
- D. Notes on hazardous air pollutants (HAPs) and toxic air pollutants (TAPs) applicability:
 - a. The Longhorn compressor station is major for HAPs for Formaldehyde.
 - b. Longhorn compressor station is an Oil and Gas production facility, in accordance with the definition under 20.2.72.401(F) NMAC. Therefore, it is exempt from applicability and requirements of TAPs per applicability 20.2.72.402(C)(5) NMAC for all TAPs under the table 20.2.72.502 NMAC.